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AA 5052

Category Aluminum Alloy

Class Wrought

Composition

Element	Weight %
Al	97.2
Mg	2.5
Cr	0.25

Mechanical Properties

Properties		Conditions	
		T (°C)	Treatment
Density ($\times 1000 \text{ kg/m}^3$)	2.68	25	
Poisson's Ratio	0.33	25	
Elastic Modulus (GPa)	70-80	25	
Tensile Strength (Mpa)	230		
Yield Strength (Mpa)	195	25	H32 more
Elongation (%)	12		
Reduction in Area (%)			
Hardness (HB500)	60	25	H32 more
Shear Strength (MPa)	140	25	H32 more
Fatigue Strength (MPa)	115	25	H32 more

Thermal Properties

Properties	Conditions	
	T (°C)	Treatment

Thermal Expansion ($10^{-6}/^{\circ}\text{C}$)	23.8	20-100	
Thermal Conductivity (W/m-K)	137	25	H38 more

Electric Properties

Properties	Conditions		
	T ($^{\circ}\text{C}$)	Treatment	
Electric Resistivity (10^{-9}W-m)	49	25	H38 more

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